

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A device for cooling an exothermic electrical component, ~~of the type~~ comprising a metal member forming a radiator thermally coupled to a metal mass of the component forming a heat dissipating mass of the component, wherein the radiator is thermally coupled to the dissipating mass by at least one heat sink formed by an autogenous weld between one face of the dissipating mass, called the dissipating face, and one face of the radiator, opposite each ~~other~~. other, and the heat sink is constituted by the materials of the dissipating mass and of the radiator.

2. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein at least one element among the dissipating mass and the radiator is made from copper.

3. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein the component comprises at least one heat source and in which the heat sink is aligned with this source substantially parallel to a direction perpendicular to the dissipating face.

4. (Currently Amended) The device as claimed in claim 3, ~~in which~~ wherein the heat source comprises a semiconductor.

5. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein the area of the dissipating face included in the heat sink corresponds to at least 5% of the area of the dissipating face.

6. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein the sink also forms a means for fixing the component to the radiator.

7. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein the sink also forms a means of electrical conduction between the component and the radiator.

8. (Currently Amended) The device as claimed in claim 1, ~~in which~~ wherein the radiator has a plate shape and is provided with one large face opposite the dissipating mass and one large face, opposite to the preceding face, bearing on a support.

9. (Currently Amended) The device as claimed in claim 8, ~~in which~~ wherein the support is made from a material transparent to a wavelength of a laser welding head.

10. (Currently Amended) The device as claimed in claim 8, ~~in which~~ wherein the radiator is provided with two small opposed faces connected by overmolding of material, preferably of plastic, to two substantially parallel electrically conducting bars.

11. (Previously Presented) The device as claimed in claim 1, comprising a plurality of heat sinks.

12. (Previously Presented) A method for producing a device as claimed in claim 11, wherein a set of heat sinks is formed by autogenous welding in two steps during each of which one subset of sinks is formed, these two steps being separated by a step of fixing the component to a support separate from the radiator.

13. (Previously Presented) The method as claimed in claim 12, wherein the autogenous welding is carried out using a laser welding head.

14. (Currently Amended) The method as claimed in claim 13, ~~wherein the device is a device for cooling an exothermic electrical component, of the type comprising a metal member forming a radiator thermally coupled to a metal mass of the component forming a heat dissipating mass of the component, wherein the radiator is thermally coupled to the dissipating mass by at least one heat sink formed by an autogenous weld between one face of the dissipating mass, called the dissipating face, and one face of the radiator, opposite each other, in which the sink also forms a means for fixing the component to the radiator, in which and the sink also forms a means of electrical conduction between the component and the radiator, in which the radiator has a plate shape and is provided with one large face opposite~~

the dissipating mass and one large face, opposite to the preceding face, bearing on a support, ~~and in which~~ the support is made from a material transparent to a wavelength of a laser welding head, ~~in which~~ and the autogenous welding is carried out through the support.

15. (Previously Presented) The method as claimed in claim 12, wherein the autogenous welding is carried out using a vacuum electron beam.

16. (New) A method for producing a device for cooling an exothermic electrical component, comprising a metal member forming a radiator thermally coupled to a metal mass of the component forming a heat dissipating mass of the component, wherein at least one heat sink is formed between one face of the dissipating mass, called the dissipating face, and one face of the radiator, opposite to each other, by autogenous welding, so as to thermally couple the radiator and the dissipating mass.